SKYTRON

IMAGING TABLE

OPERATORS MANUAL

3002 IMPULSE

REV 6/05

MODEL 3002 IMPULSE

REV 6/05

Although current at the time of publication, SKYTRON's policy of continuous development makes this manual subject to change without notice.

SKYTRON SURGICAL LIGHTS AND TABLES LIMITED WARRANTY

Limited Warranty. SKYTRON, a Division of the KMW Group, Inc., warrants only to the original purchaser (the "Customer") that the products that it sells, either directly or through its distributors or other authorized representatives, shall not be "defective" for the applicable time provided for, and subject to the conditions and exceptions stated in, this warranty. A product shall be considered "defective" if SKYTRON determines that it is defective in materials or workmanship and that the defect materially impairs the value of the product under normal use, maintenance and service. This warranty does not apply to (i) any product that is modified or altered, (ii) minor product adjustments necessitated by ordinary wear and tear or (iii) damage to the products caused by accident, use of replacement parts other than original OEM parts, unauthorized repairs, improper installation or use, abuse, lack of user training, or failure to comply with SKYTRON's instructions. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE.

Warranty Period. The warranty on replacement parts, spares, bulbs (for surgical lights), pads and accessory items (for surgical tables) shall extend for 90 days from the date of receipt by the Customer. The warranty on all SKYTRON Surgical Lights and Tables shall extend for two years from (i) the initial installation of the product by Customer or (ii) the first anniversary of the date of shipment to the Customer, whichever is earlier. If SKYTRON supplies a replacement part or product under this warranty, then the warranty on such replacement part or product shall terminate upon (i) 90 days or (ii) the end of the remaining period of the original warranty, whichever is of greater benefit to the Customer.

Remedies. If a product proves defective during the applicable warranty period, and if the Customer gives SKYTRON and the distributor from whom the Customer purchased the product written notice of the defect within such period and complies with all other terms of this warranty, then SKYTRON or its authorized service agent shall repair or replace the defective product or part thereof, at SKYTRON's option. If necessary, this warranty includes the cost of service labor and travel time to the site of product use for two years; provided, however, that delays caused by the Customer in accessing the product for repair will be chargeable to the Customer at SKYTRON's authorized service representative's normal hourly rate. If SKYTRON (or its authorized representative) fails to repair or replace any defective product or part thereof within a reasonable time, then SKYTRON shall be liable for the reasonable cost of repair by a third party, but the Customer shall not obtain repair by a third party without giving SKYTRON at least 15 days prior written notice, during which time SKYTRON (or its authorized representative) may repair or replace the defective product or part thereof. This is the sole and exclusive remedy for any defect.

Limitations. SKYTRON SHALL NOT BE LIABLE TO THE CUSTOMER OR TO ANYONE ELSE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY, INDIRECT, OR PUNITIVE DAMAGES ARISING FROM ANY DEFECT, DELAY, NONDELIVERY, RECALL, OR OTHER BREACH BY SKYTRON, INCLUDING, BUT NOT LIMITED TO, PERSONAL INJURY, DEATH, PROPERTY DAMAGE, LOST PROFITS, OR OTHER ECONOMIC INJURY. SKYTRON shall not be liable to the Customer or anyone else in tort for any negligent design or manufacture of any products, or for the omission of any warning with respect thereto.

Miscellaneous. No dealer, employee, or other representative of SKYTRON may extend or enlarge this warranty, waive any of the limitations, or make any different or additional warranties with respect to the products. Any statements to the contrary are null and void unless made in writing signed by an authorized officer of SKYTRON. This warranty shall be governed by Michigan law. Any action arising out of or relating to this warranty shall be brought in any federal or state court located in Kent County, Michigan and having jurisdiction of the subject matter, and any such court shall have personal jurisdiction over the parties and the parties waive any objection that the court is an inconvenient forum.

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EQUIPMENT LABELS AND SPECIFICATIONS

FUSE TYPE 10 AMP, FAST ACTING (FA)

INDICATES DANGEROUS VOLTAGE, 120 V, 60 Hz

CLASS I DEFIBRILLATION PROOF, TYPE B EQUIPMENT- IPX4 RATED.
INTERNALLY POWERED EQUIPMENT

PROTECTIVE GROUNDING.
IN ORDER TO ENSURE PROPER GROUNDING RELIABILITY,
THIS TABLE MUST BE CONNECTED TO A PROPERLY GROUNDED
HOSPITAL GRADE OUTLET.

CONNECTION FOR NEUTRAL CONDUCTOR SUPPLIED

UNIT TO BE USED ONLY IN SPECIFIED ENVIRONMENTAL CONDITIONS
TEMPERATURE: 15˚ - 30˚ C (60˚ -85˚ F)
HUMIDITY: 30% - 60% RELATIVE HUMIDITY, NON CONDENSING

AC VOLTAGE

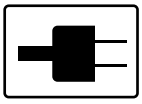
IPX4 ENCLOSURE CLASS

V VOLTAGE RATING OF THE UNIT

A AMPERAGE RATING OF THE UNIT

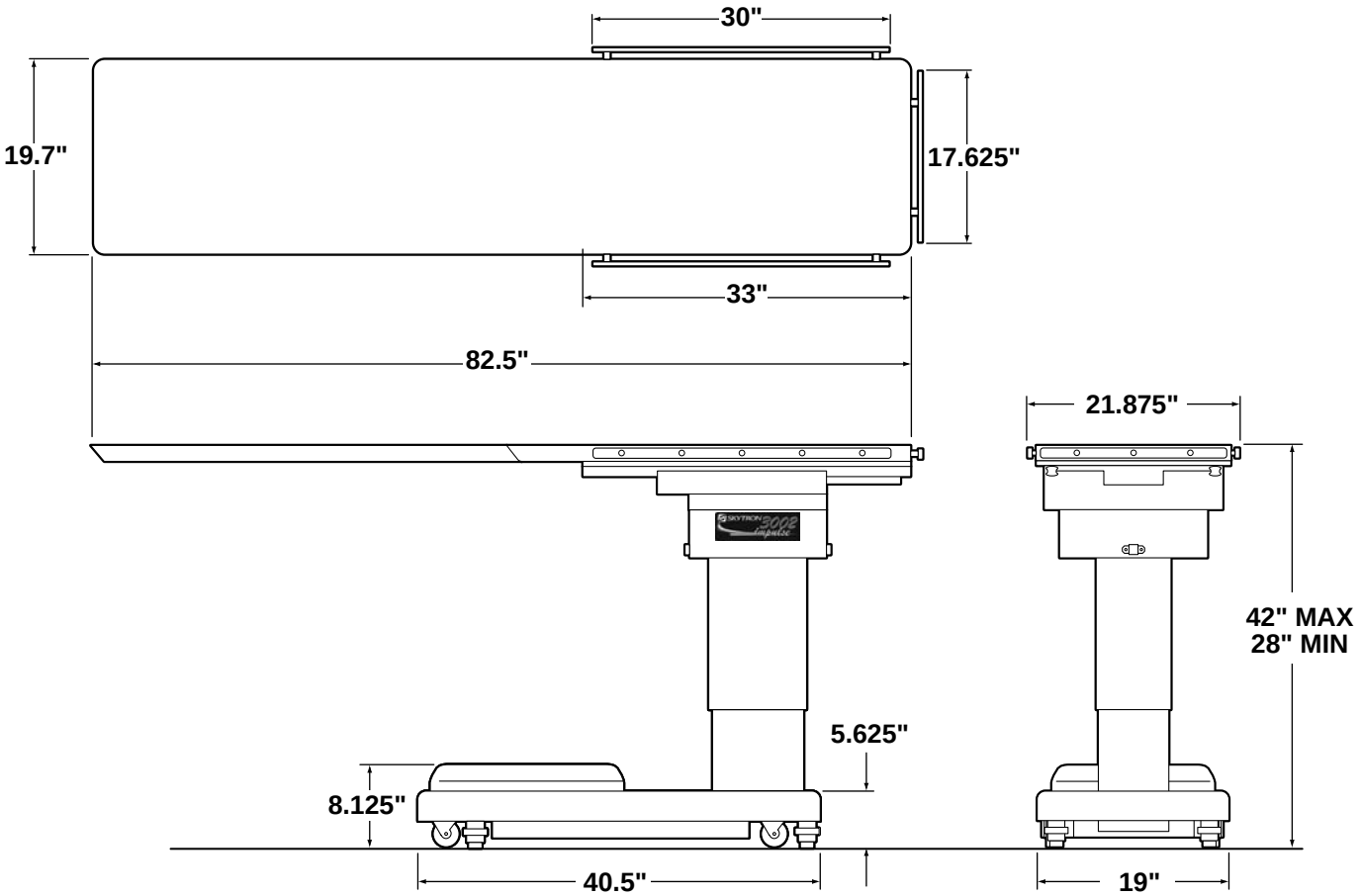
HZ FREQUENCY OF THE UNIT

ATTENTION, CONSULT MANUAL FOR FURTHER INSTRUCTIONS.
INDICATES SPECIAL USER ATTENTION.



POWERED BY AC VOLTAGE

TOP VIEW



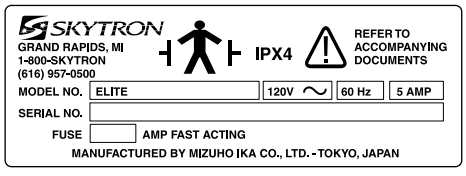
SIDE VIEW **END VIEW**

ENTELA PENDING
TO UL2601-1,
CAN/CSA601.1, IEC 60601-2-46

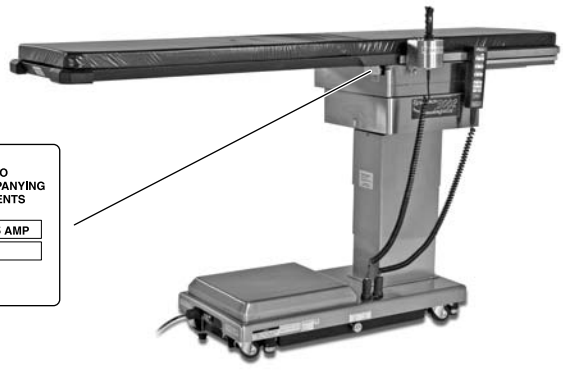
US C entela® Certified

Electrical Specifications

Power requirements	120 VAC, 60Hz, 450 Watts
Current Leakage	Less than 100 micro amps
Power Cord	15 feet w/hospital grade connector (removable)



SERIAL NUMBER TAG



Certain accessories can be damaged when changing the position of the table top. Always look first to see if a desired movement is going to interfere with any accessories in use.

The operator has the ultimate responsibility of preventing damage to the table and surrounding equipment or possible injury to the patient or staff. In general, common sense will dictate when there is a potential hazard.

During table set-up and patient positioning, the following items should be observed.

The table top is constructed of a radiolucent composite material. Use caution when using accessories to protect the table top from damage including nicks or scratches to maintain clear imaging capability.

The lift and articulate capacity is based on the patient weight load being evenly distributed on the table top. Refer to figures 2-15 and 2-16 for proper patient positioning.

The following precautions should be reviewed by all personnel prior to operating the table.

A routine instructional Program should be implemented by the facility for proper usage instructions for all personnel that may operate this table.

WARNING

Indicates a possibility of personal injury.

CAUTION

Indicates a possibility of damage to equipment.

NOTE

Indicates important facts or helpful hints.

NOTE

Activating any function button will activate the brake system. Using the TABLE UP function to set the brakes provides a visual assurance that the brakes are locked without altering the table position, except when emergency brake is released.

WARNING

DO NOT use the table in the presence of FLAMMABLE GASES (Flammable gases are not commonly used in the U.S.).

NOTE

The POWER SWITCH can be placed in the OFF position to completely deactivate all table functions during certain procedures or in case of emergency.

NOTE

An equalization grounding terminal is located under the main power panel. This is provided as an alternate pathway to reduce the risk of static shock hazards. Always follow recommended grounding procedures to ensure patient and staff safety.

NOTE

With an evenly distributed patient weight load, all table positioning functions will operate smoothly and quietly with a patient weight of up to 500 pounds. Observe the table weight capacity on the column to ensure safe operation.

WARNING

DO NOT unlock brakes when a patient is on the table. An uneven patient weight load may cause instability.

WARNING

To maximize patient safety, utilize proper restraint methods during extreme Trendelenburg and lateral tilt positioning.

NOTE

Return from Trendelenburg positioning with a 500 pound patient positioned with head away from elevation column and Top Slide positioned fully toward the head end may require an extended amount of time.

WARNING

Before using the joystick be sure the table is properly locked to the floor. The joystick will not automatically lock the brakes. The pendant control must be used to lock the brakes.

NOTE

•The Emergency Brake Release Valve must be closed and tightened (counter-clockwise) before activating any hydraulic function.

•If the Emergency Brake Release Valve has been operated, the BRAKE UNLOCK button on the pendant control will have to be pressed before brakes will lock again.

WARNING

Consult manufacturer's instructions when using high frequency surgical equipment, cardiac defibrillator and cardiac defibrillator monitors.

WARNING

When an antistatic pathway is required, the table has to be used on an antistatic floor.

WARNING

The antistatic properties of the table are dependent on the use of the original pad set which was furnished with the table or an alternate approved replacement.

CAUTION

MAXIMUM END LOAD 180 POUNDS.

During transfer, DO NOT seat the patient at the distal end of the table. Table stability may be compromised.

Lithotomy positioning is NOT ADVISED for the 3002 table.

NOTE

Always follow current AORN Journal Guidelines to ensure proper cleaning and disinfection procedure.

WARNING

Always follow OSHA blood-borne pathogens standards for protective clothing, including gloves, masks and eye protection when cleaning the table.

CAUTION

Thoroughly read and follow the manufacturer's directions for all cleaning fluids. DO NOT use cleaners containing phenolics.

CAUTION

When using spray cleaners DO NOT spray fluids directly into electrical receptacles or micro switches.

CAUTION

Before replacing pads on the table, make sure the pads and all mating surfaces are completely dry.

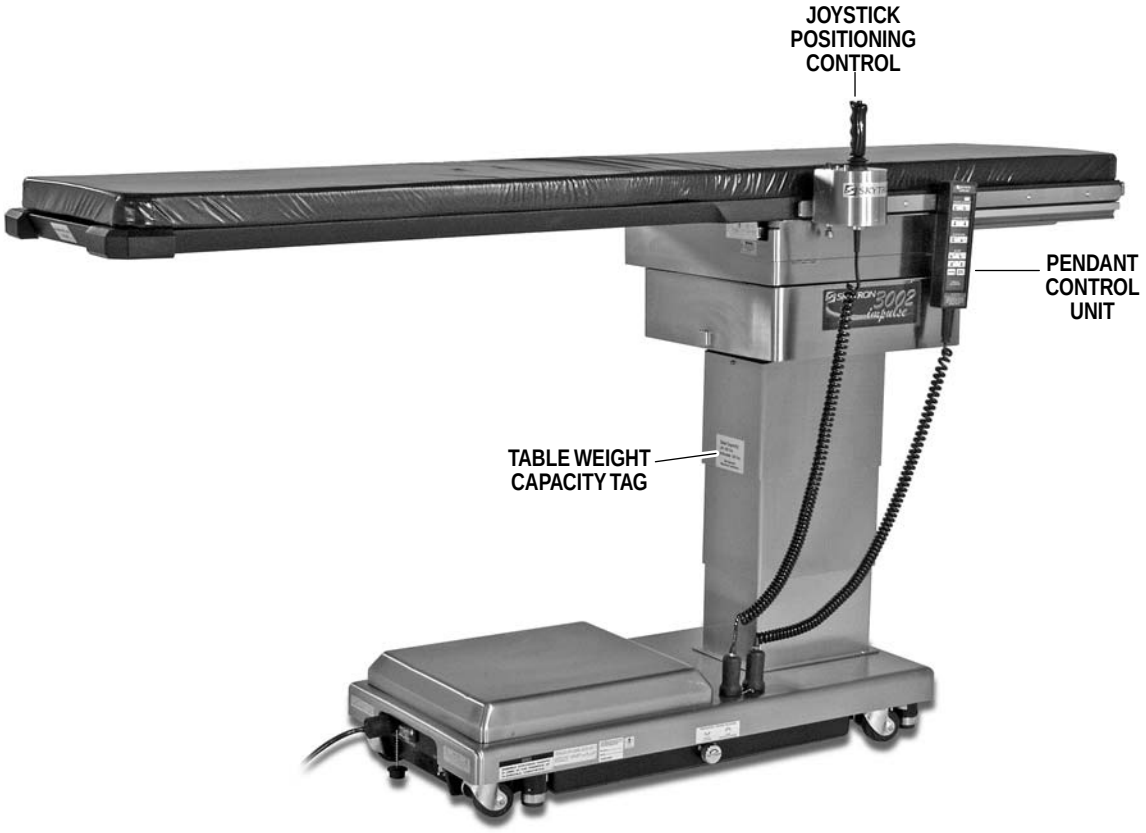


Figure 1-1. 3002 Impulse

1-1. General

SKYTRON's 3002 Impulse Imaging Table is electro-hydraulically operated. See figure 1-1.

The electro-hydraulic positioning functions operated by the hand-held, pendant control unit are: Trendelenburg, lateral tilt, elevation, return to level, top slide and the floor lock/brake system.

A Joystick positioning control is provided to allow the surgeon to operate the slide functions of the table top.

A manual control is provided for emergency brake release.

1-2. Power Requirements

The 3002 Impulse Imaging Table requires a 120VAC, 60 Hz electrical power supply. The table is equipped with a 15 foot long removable power cord with a three prong, hospital grade plug. The power cord attaches to the table base with a twist lock connector. The main power ON/OFF switch is located on the electrical panel. See figure 1-2.

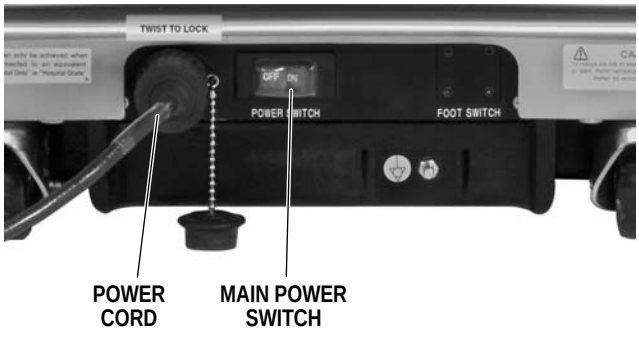


Figure 1-2. Main Power Switch

1-3. Pendant Control Unit

The hand-held pendant control unit (figure 1-3) has a non-slip rubber cover which assures a positive grip during use. A spring clip hanger is located on the back of the control for storage. When the Pendant Control is not in use, it should be stored on a convenient side or end rail. A bracket is located under the table top for storage of the Pendant Control when the table is not in use and during cleaning. See figure 1-4.

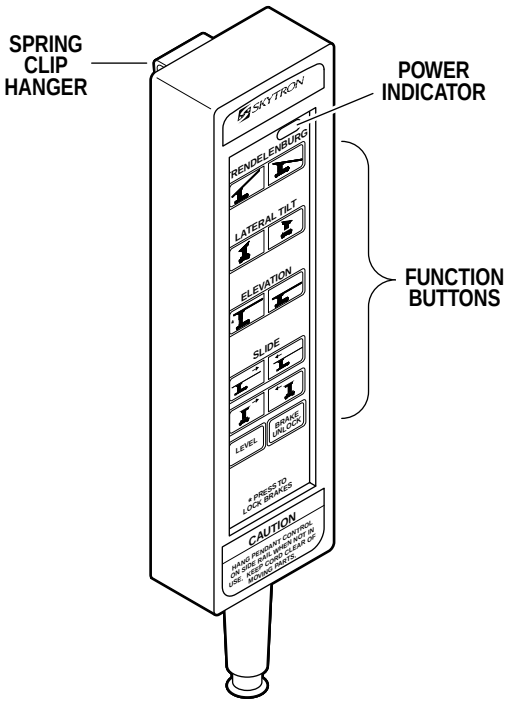


Figure 1-3. Pendant Control Unit

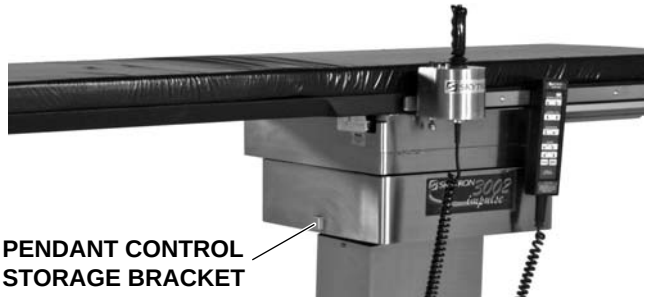


Figure 1-4. Pendant Control Storage Bracket

The function buttons are identified with symbols and descriptions for all functions. See figure 1-5. The Trendelenburg and table-up buttons are red, the remaining buttons are all green.

1-4. Floor Lock/Brake System

The floor lock/brake system consists of four self-leveling, hydraulic brake cylinders which raise and support the table base off from the casters. Press the ELEVATION-UP button on the pendant control to set the table's brakes. An electronic timer in the brake circuit will activate the brake system until the brakes are completely set, approximately 8-10 seconds.

NOTE

Activating any function button will activate the brake system. Using the TABLE UP function to set the brakes provides a visual assurance that the brakes are locked without altering the table position, except when emergency brake is released.

To unlock the brakes, press the BRAKE UNLOCK button and release. The brakes will retract automatically in approximately 7-8 seconds.

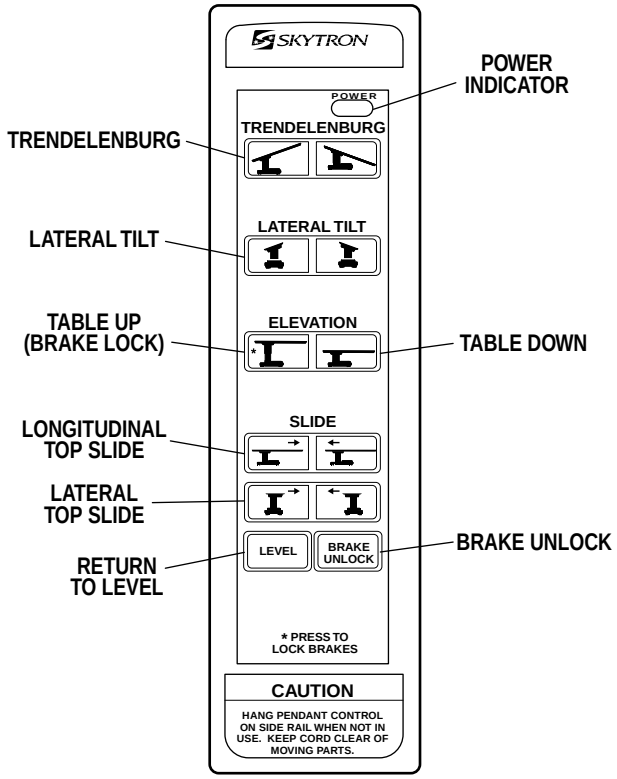


Figure 1-5. Function Push Buttons

2-1. Electrical Power

WARNING

DO NOT use the table in the presence of FLAMMABLE GASES (Flammable gases are not commonly used in the U.S.).

a. Make sure the Power cord is securely attached to the table. To install the power cord, align the cord connector with the base connector, insert the cord and twist clockwise to lock the cord into the connector. See figure 2-1. Plug the cord into a properly grounded, Hospital Grade, 120 VAC outlet. Make sure the power cord is routed to the outlet to prevent it from being in the way of operating personnel.

b. Activate the POWER SWITCH located on the electrical panel. The switch will illuminate.

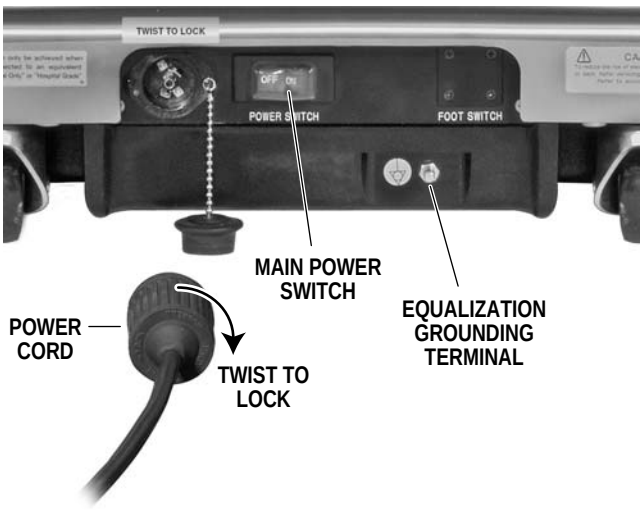


Figure 2-1. Main Power Switch

NOTE

The POWER SWITCH can be placed in the OFF position to completely deactivate all table functions during certain procedures or in case of emergency.

The pendant control buttons and the green POWER indicator light located in the upper right corner of the pendant control will illuminate. See figure 2-2.

NOTE

An equalization grounding terminal is located under the main power panel. This is provided as an alternate pathway to reduce the risk of static shock hazards. Always follow recommended grounding procedures to ensure patient and staff safety.

2-2. Positioning Functions

The hand-held pendant control unit (figure 2-2) activates the following table functions:

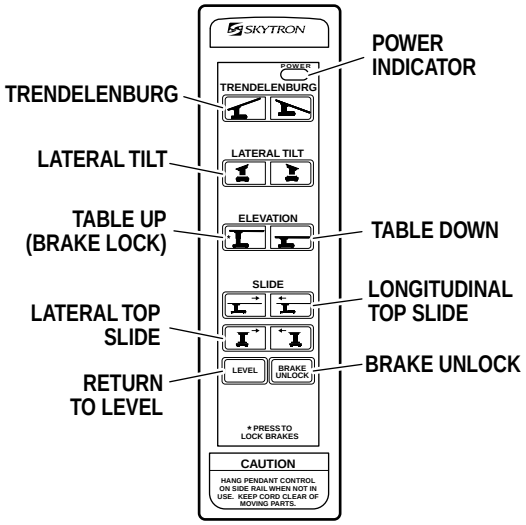


Figure 2-2. Pendant Control Unit

NOTE

With an evenly distributed patient weight load, all table positioning functions will operate smoothly and quietly with a patient weight of up to 500 pounds. Observe the table weight capacity on the column to ensure safe operation.

a. Floor Lock/Brake System. To activate the brakes without affecting table positioning, press the ELEVATION-UP button. See figure 2-3. The elevation cylinder will not function until the brakes are completely extended.

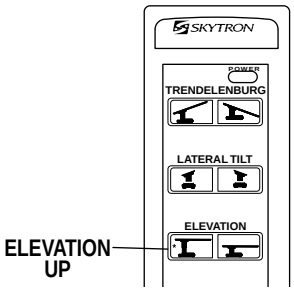


Figure 2-3. Brake System Activation

Press the BRAKE-UNLOCK button on the pendant control to release the four self-leveling brake feet in order to move the table. See figure 2-3. The brake delay circuit automatically retracts the brake system with just one press of the BRAKE-UNLOCK button. It takes approximately 7-8 seconds to totally release the system.

WARNING

DO NOT unlock brakes when a patient is on the table. An uneven patient weight load may cause instability.

b. Trendelenburg. To achieve Trendelenburg positioning, press the appropriate TRENDELENBURG button (figure 2-4). Trendelenburg positioning of up to 20° may be obtained.

WARNING

To maximize patient safety, utilize proper restraint methods during extreme Trendelenburg and lateral tilt positioning.

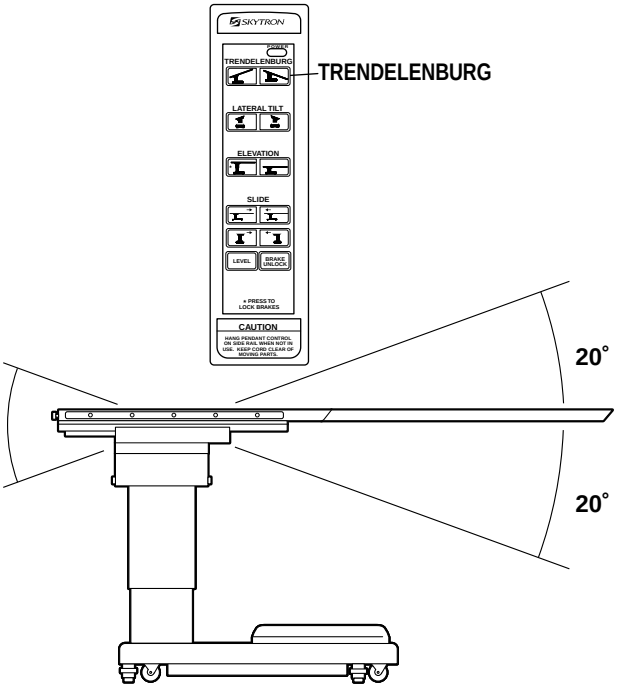


Figure 2-4. Trendelenburg Positioning

NOTE

Return from Trendelenburg positioning with a 500 pound patient positioned with head away from elevation column and Top Slide positioned fully toward the head end may require an extended amount of time.

c. Lateral Tilt. To achieve lateral tilt positioning, press the appropriate LATERAL-TILT button (figure 2-5). Tilt of up to 20° may be obtained.

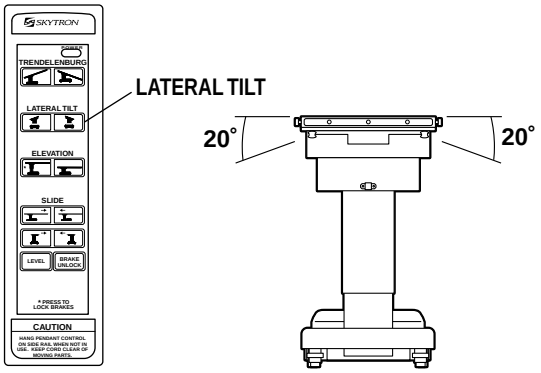


Figure 2-5. Lateral Tilt Positioning

d. Elevation. To raise table top, press the UP button (figure 2-6.). The table will lift a patient weight of 500 pounds up to a maximum height of 42". To lower the table top, press the DOWN button. The table top will go down to a minimum height of 28" (minus pad).

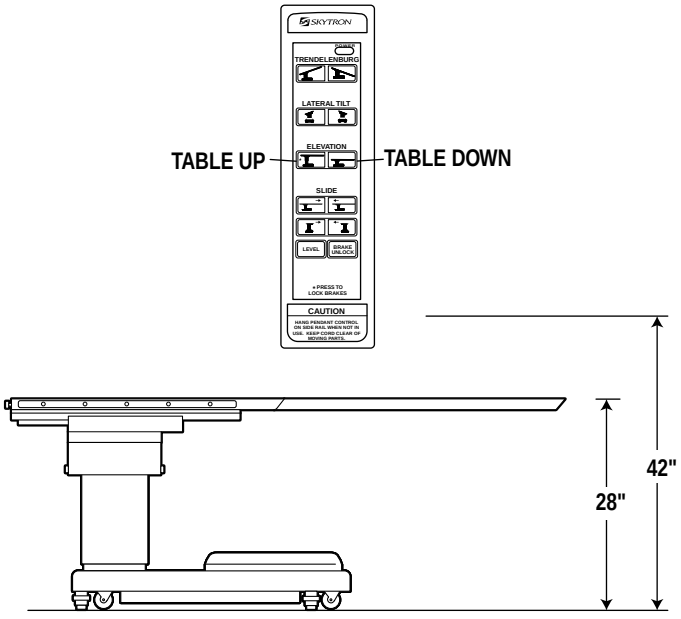


Figure 2-6. Elevation Function

e. Top Slide. To achieve Longitudinal Top Slide, press the appropriate SLIDE button (figure 2-7). Longitudinal Top Slide of up to 20" may be obtained.

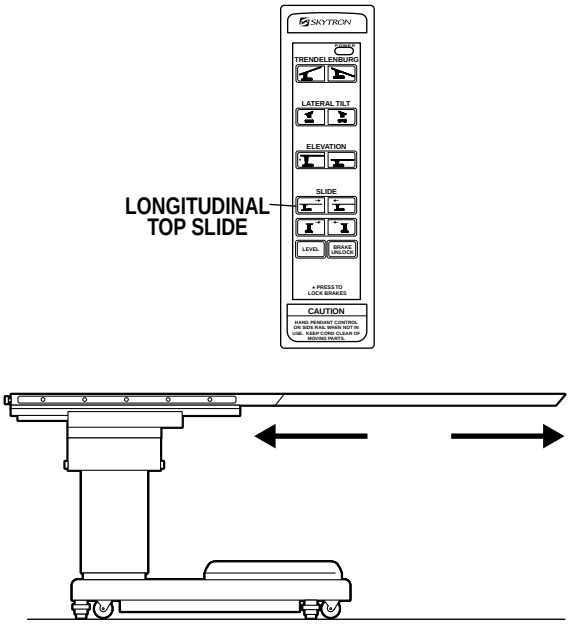


Figure 2-7. Longitudinal Top Slide

To achieve Lateral Top Slide, press the appropriate SLIDE button (figure 2-8). Lateral Top Slide of up to 8" may be obtained.

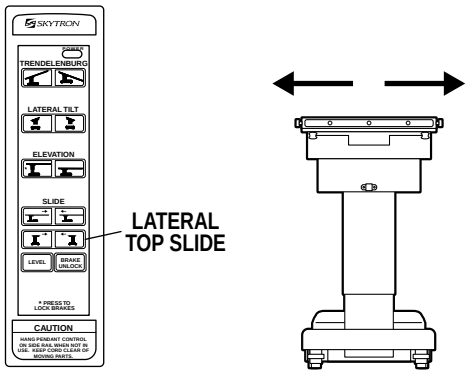


Figure 2-8. Lateral Top Slide

f. Return To Level. To return the table top to a level position, press the LEVEL button (figure 2-9).

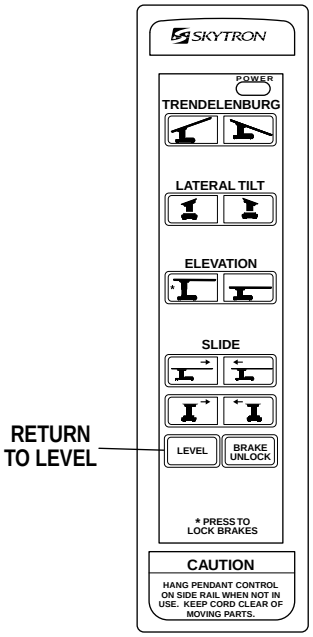


Figure 2-9. Return To Level

2-3 Joystick Positioning Control

The "Joystick" positioning control allows the surgeon to operate the SLIDE functions of the table to move the patient rather than the C-Arm during a procedure. Refer to figure 2-10.

Figure 2-10. Joystick Control

The multi-directional control will accept 8 different directional commands. One each left and right lateral movement, one each longitudinal movement and 4 each bi-directional movements. Refer to figure 2-11.

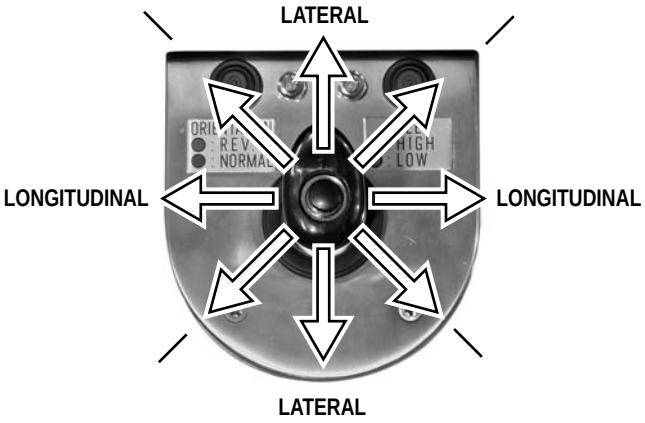


Figure 2-11.

The joystick is equipped with a safety button on the top of the handle. This must be pressed and held down to operate the slide functions of the table.

To ensure proper operation, the joystick should be locked down to the table side rail by tightening the locking knob.

The joystick is equipped with two additional buttons that allow speed and orientation selections. Refer to figure 2-12.

Figure 2-12.

The two respective LED indicators will be lighted green or red depending on the selection. The speed LED will be green when in high speed and red when in low speed.

The orientation LED will be green when in REV. mode and red when in normal mode.

Orientation selection is determined by which side of the table the surgeon is standing. Refer to figure 2-13. If the elevation column is to the surgeon's right select 'normal' orientation (red LED) to have the table top slide toward the right when the joystick is moved toward the right. If the elevation column is to the left of the surgeon select 'REV' orientation (green LED) to have the table top slide move toward the left when the joystick is moved toward the left.

WARNING

Before using the joystick be sure the table is properly locked to the floor. The joystick will not automatically lock the brakes. The pendant control must be used to lock the brakes.

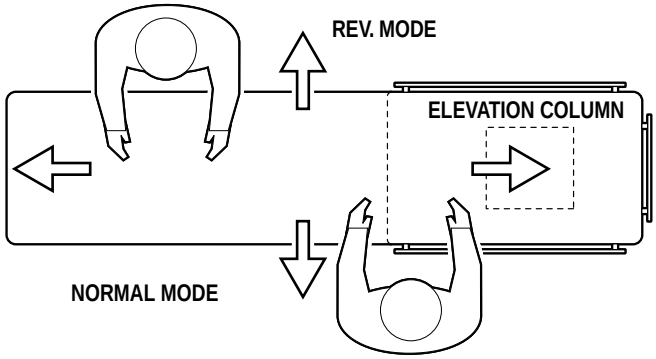


Figure 2-13.

2-4. Emergency Brake Release

In case of a power failure or an electrical problem within the table, the emergency brake release system can be used to move the table. The control knob for this function is located on the side of the table base and is identified by an EMERGENCY BRAKE RELEASE label. Turn the knob counterclockwise to release the brakes. See figure 2-14.

Figure 2-14. Emergency Brake Release

NOTE

•The Emergency Brake Release Valve must be closed and tightened (counterclockwise) before activating any hydraulic function.

•If the Emergency Brake Release Valve has been operated, the BRAKE UNLOCK button on the pendant control will have to be pressed before brakes will lock again.

WARNING

Consult manufacturer's instructions when using high frequency surgical equipment, cardiac defibrillator and cardiac defibrillator monitors.

WARNING

When an antistatic pathway is required, the table has to be used on an antistatic floor.

WARNING

The antistatic properties of the table are dependent on the use of the original pad set which was furnished with the table or an alternate approved replacement.

2-5. Positioning

During table set-up and patient positioning, the following items should be observed.

The table top is constructed of a radiolucent composite material. Use caution when using accessories to protect the table top from damage including nicks or scratches to maintain clear imaging capability.

The 500 pound lift and articulate capacity is based on the patient weight load being evenly distributed on the table top. Refer to figures 2-15 and 2-16 for proper patient positioning.

Normal patient positioning is with the head placed at the elevation column end of the table.

CAUTION

MAXIMUM END LOAD 180 POUNDS.

During transfer, DO NOT seat the patient at the distal end of the table. Table stability may be compromised.

Lithotomy positioning is NOT ADVISED for the 3002 Impulse table.

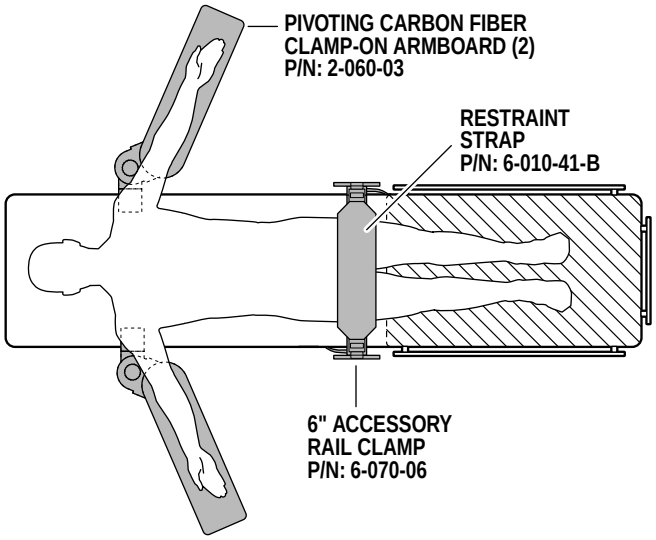


Figure 2-15.

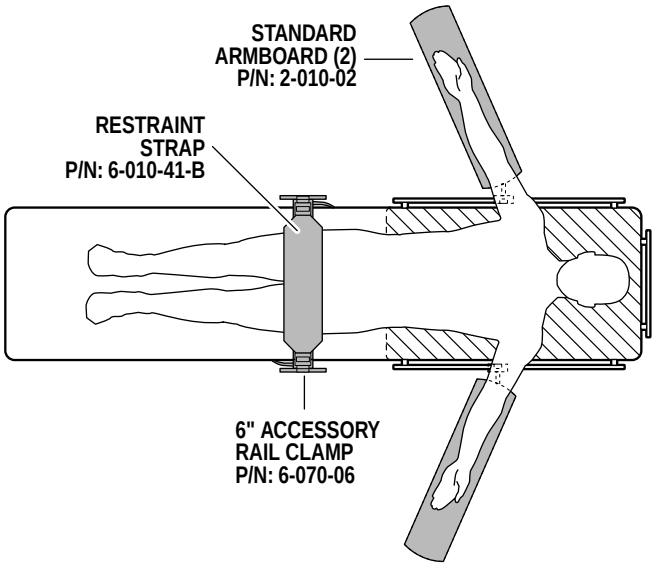


Figure 2-16.

3-1. Preventive Maintenance

The following preventive maintenance checks and services are recommended to ensure the serviceability and proper operation of your SKYTRON Imaging Table.

a. During normal cleaning, a general visual examination should be made checking for leaks, loose bolts or parts and cracked or chipped paint. Any necessary repairs should be made.

b. Semi-annually the following checks and services should be performed:

1. Check all hydraulic fittings, mini-valves and slave cylinders for proper operation and any signs of leaks.
2. Check the hydraulic speed controls and adjust if necessary.
3. Pressure check (with a gauge) the pressure relief valve.
4. Check all mechanical adjustments and adjust as necessary.
5. Check hydraulic fluid level.
6. Lubricate the elevation slider assembly.
7. Inspect table top for nicks, scratches or dents.

3-2. Cleaning Recommendations

NOTE

Always follow current AORN Journal Guidelines to ensure proper cleaning and disinfection procedure.

The following procedures should be followed when cleaning the table between cases.

Place table top in level position prior to starting cleaning procedure.

WARNING

Always follow OSHA blood-borne pathogens standards for protective clothing, including gloves, masks and eye protection when cleaning the table.

Remove major contaminants from the table with disposable materials following appropriate biohazard waste disposal procedures.

Remove all table pads and place them on a flat surface for cleaning.

CAUTION

Thoroughly read and follow the manufacturer's directions for all cleaning fluids. DO NOT use cleaners containing phenolics.

Apply cleaning fluid liberally to top and sides of each pad and wipe with a clean lint-free cloth.

Using a clean, damp, lint-free cloth, wipe the pads to remove the cleaning fluid.

Using a clean, dry, lint-free cloth, wipe the pads to remove all moisture.

Repeat the steps to clean the bottom of the each pad.

CAUTION

When using spray cleaners DO NOT spray fluids directly into electrical receptacles or micro switches.

Repeat cleaning procedure for all table surfaces including the top, sides, elevation column, base and all accessories.

CAUTION

Before replacing pads on the table, make sure the pads and all mating surfaces are completely dry.

When the cleaning procedure is complete, replace all pads and accessories as applicable.

Remove pendant control from table bracket and apply cleaning solution to the pendant control and cord.

Use a clean cloth dampened with water to remove cleaning solution.

Use another clean damp cloth to remove any remaining residue.

Install pendant control on bracket for storage when cleaning procedure is complete.

3-3. Service

Table maintenance can be performed by trained maintenance personnel using SKYTRON authorized replacement parts and service techniques. Service instructions and parts are available from SKYTRON.

To obtain service instructions, replacement parts, factory service or preventive maintenance contracts, contact the SKYTRON representative listed below.

Or contact:
SKYTRON
5000 - 36th Street S.E.
Grand Rapids, MI 49512
1-800-SKYTRON (1-800-759-8766)
FAX: (616) 957-5053

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